



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,825	07/14/2003	Eric Krantz-Lilenthal	0223A	5890

112 7590 10/06/2004

ARMSTRONG WORLD INDUSTRIES, INC.  
LEGAL DEPARTMENT  
P. O. BOX 3001  
LANCASTER, PA 17604-3001

EXAMINER
----------

GREEN, CHRISTY MARIE

ART UNIT	PAPER NUMBER
	3635

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/618,825	KRANTZ-LILIENTHAL ET AL. 
	<b>Examiner</b> Christy M Green	<b>Art Unit</b> 3635

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 14 July 2003.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-27 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1-3,7-17 and 19-27 is/are rejected.  
7)  Claim(s) 4-6 and 18 is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: *Exhibit A, attached figure (1).*

## **DETAILED ACTION**

This is a first office action for serial number 10/618825, entitled Suspension system and structure for securing border ceiling panels, filed on July 14, 2003.

### ***Claim Objections***

Claim 11 is objected to because of the following informalities: the border elements are unclear, is this the boarder panel, the border structure or both or another part of the invention?. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7, 8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Strom et al., US Patent # 1,997,605.

Strom discloses the claimed invention an apparatus for securing a panel in a suspended ceiling system having a plurality of suspension elements, the apparatus comprising: a border structure (at 12, 44) for attachment of the panel to the suspension element, the border structure including a plurality of horizontal (13, 14) and vertical surface members (12), wherein a horizontal surface member is inserted into a hanger (15) secured to a suspension element (16), and wherein another horizontal surface member (14) supports a panel (25); a plug-in clip (19) to secure the hanger (15) to the suspension element (16); a spring clip (31, 41), the spring clip keeping a cut end of a

border panel (at 26) from displacement from the border structure (page 2, column 1, lines 46-48) during a seismic event; the suspension element (16) is a U-profile structure (at 17); the border structure is fabricated from a roll-form metal sheet (page 1, column 2, lines 25-26).

Claims 11-14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Neff, US Patent # 1,997,605.

Neff discloses the claimed invention including system for securing a border panels comprising: a plurality of suspension elements (80); a plurality of border structures (at 16), each border structure being secured to at least one of the plurality of suspension elements (by 10) and supporting an end of a border panel (14); a plurality of grid elements (44), each grid element being secured to a suspension element (80) and supporting an end of a border panel (by 50); a plurality of hangers (70), each hanger having a slot (78) for attaching the plurality of a border elements and the plurality of grid elements (44) to the suspension elements (80 by 76); each border structure (at 16) includes a plurality of horizontal (30, 40) and vertical surface members (24,36), a first horizontal surface member (30) being inserted into a hanger (70) and secured to the suspension element (80) and a second horizontal surface (40) member supporting the end of a panel (14) inserted into the border structure (at 22 at figure 1) between the first and second horizontal surface members (30, 40); a plurality of plug-in clips (76) which secure the plurality of hangers (70) to the plurality of suspension elements (80); the plurality of suspension elements (80) are U-profile structures (attached figure 2); and a

plurality of panels (14), each panel having a cut (34) end being supported by a border structure (16) and an uncut end being supported by a grid element (at 44).

Claims 20-21 and 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Wendt, US Patent # 5,937,605.

Wendt discloses the claimed invention including a border structure comprising: a first horizontal surface member (162 – figure 3) for supporting an end portion of a panel; an second horizontal surface member (at 160 – figure 4a); a third horizontal surface member (attached figure 3) positioned between the first (162) and second horizontal surface members (at 160- figure 4a); a first vertical section (10) adjoining the first horizontal surface (162) member and the third horizontal surface member (attached figure 3); and a second vertical section (at 160 – figure 5) adjoining the second horizontal surface member and the third horizontal (by 12 – figure 7); each of the first and second vertical sections include a pair of hold down clip flanges (at 10, 11 – figure 7) which extend horizontally from the first and second vertical sections (162 – figure 8); a border structure (160) comprising: a vertical section (10) having first and second edges (attached figure 7); a first surface member (at 12 – figure 8) extending horizontally from the first edge; and a second surface member (12) extending horizontally from the vertical section (10) and being spaced apart from the first surface member (by 10); whereby the border structure (160) covers the framework of an adjacent suspension system (120); the second horizontal surface (12) member has a first portion extending horizontally from the vertical section (10) and a second portion extending horizontally in a plane offset from the first portion (shown by 11 – figure 7),

the second portion being connected to and spaced vertically apart from the first portion by an intervening substantially vertical portion (10); a third surface member (14) extending horizontally from the second edge of the vertical section (10).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strom.

Strom discloses the claimed invention as stated above in claim 1, except for the border structure is formed by an extrusion of metal. Strom teaches that the structure is made of suitable means (column 1, lines 17-19), therefore It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the border structure to be formed of an extrusion metal in order to allow for an easy manufacturing process of the structure. Also, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the border structure to be formed of metal, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Also, it is common knowledge to those of ordinary skill to choose materials that has sufficient strength for the intended use of that material.

Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neff.

Neff discloses the claimed invention as stated above in claim 11, except for the plurality of grid elements are J-bar structures; the plurality of border structures are formed by metal extrusions; the plurality of border structures are roll-formed from metal sheets. In regards to the J-bar structures, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the grid elements as J-bar structures, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art.

Neff already teaches that it is known in the art to provide a portion (38) of member (border) can be shaped or formed (column 5, lines 7-10), therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the members to be shaped or roll formed by extrusion, in order to allow for an easy manufacturing process of the structure. Also, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the border structure to be formed of metal, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Also, it is common knowledge to those of ordinary skill to choose materials that has sufficient strength for the intended use of that material.

Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wendt

Wendt discloses the claimed invention as stated above in claim 20, including a panel (180).

Wendt does not disclose the end portion of the panel is cut before placement on the first horizontal surface member, wherein the border structure is formed by a metal extrusion, the border structure is fabricated from a metal sheet. In regards to the panel is cut before placement on the first horizontal surface member, It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the panel to be cut prior to placement on the member in order to ensure a proper fit within the suspended grid.

In regards to the border structure if formed by a metal extrusion, the border structure is fabricated from a metal sheet, Wendt teaches that it is known in the art to provide a clip (100) made from galvanized steel (column 5, lines 10-11), It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the boarder structure of metal extrusion in order to allow for an easy manufacturing process of the structure. Also, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the border structure to be formed of metal, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. Also, it is common knowledge to those of ordinary skill to choose materials that has sufficient strength for the intended use of that material.

***Allowable Subject Matter***

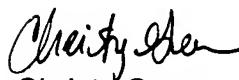
Claims 4-6 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christy M Green whose telephone number is 703-308-9693. The examiner can normally be reached on M-F 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Friedman can be reached on 703-308-0839. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Christy Green  
Patent Examiner  
September 30, 2004

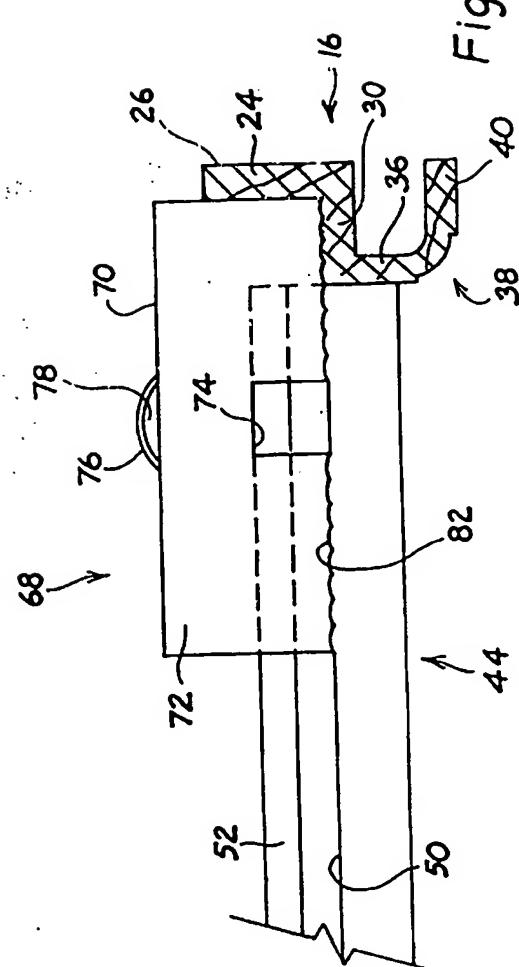


Fig. 4

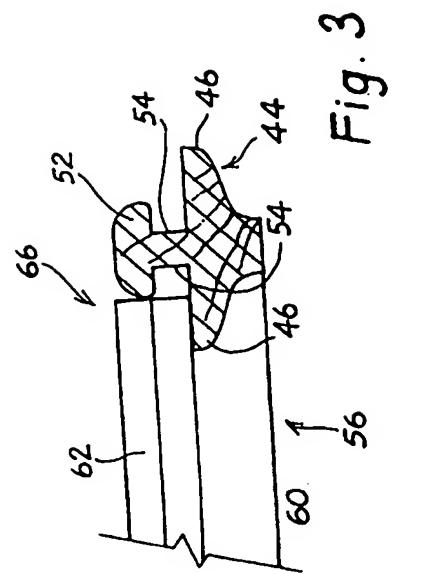


Fig. 3

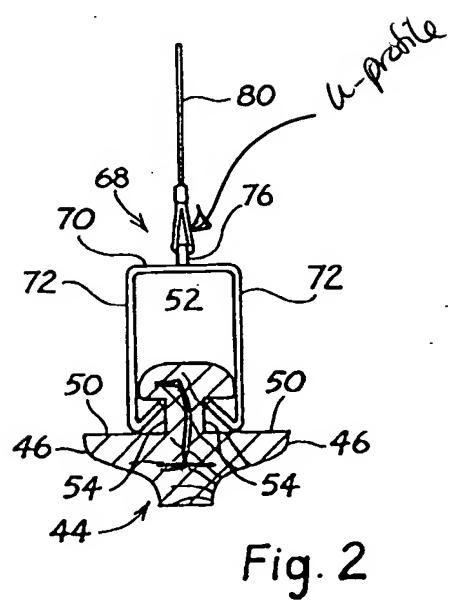


Fig. 2

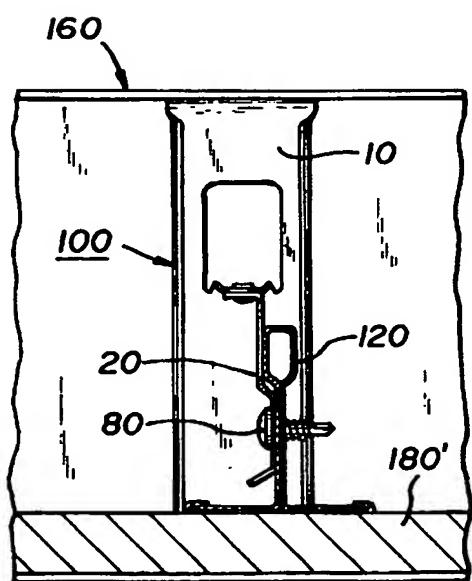
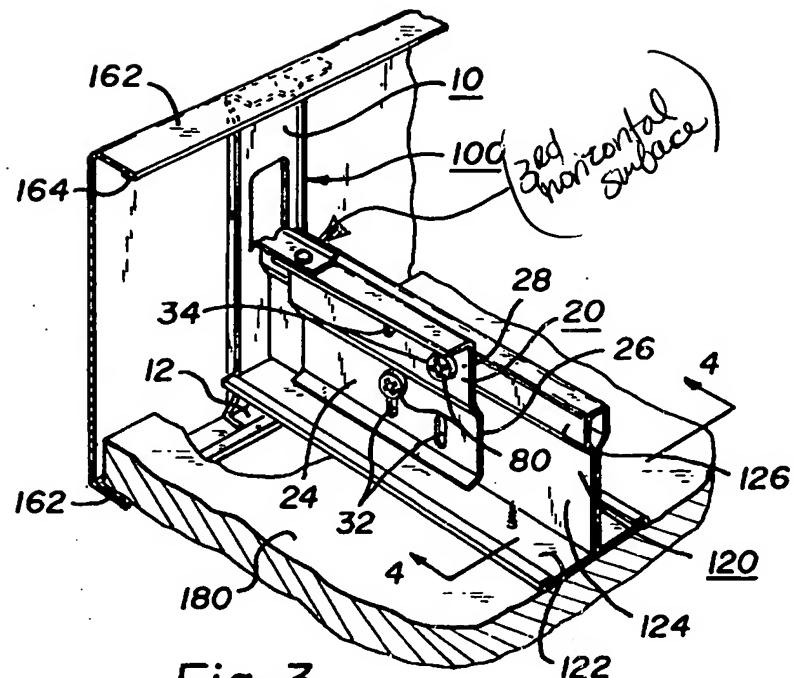


Fig. 4a

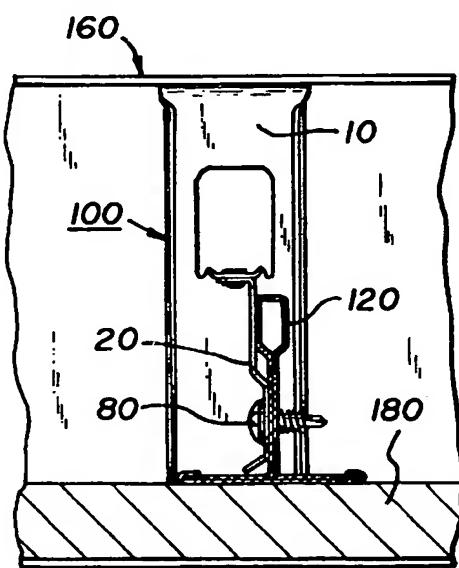


Fig. 4b